STATE OF MARYLAND

DHMH

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January 5, 2011

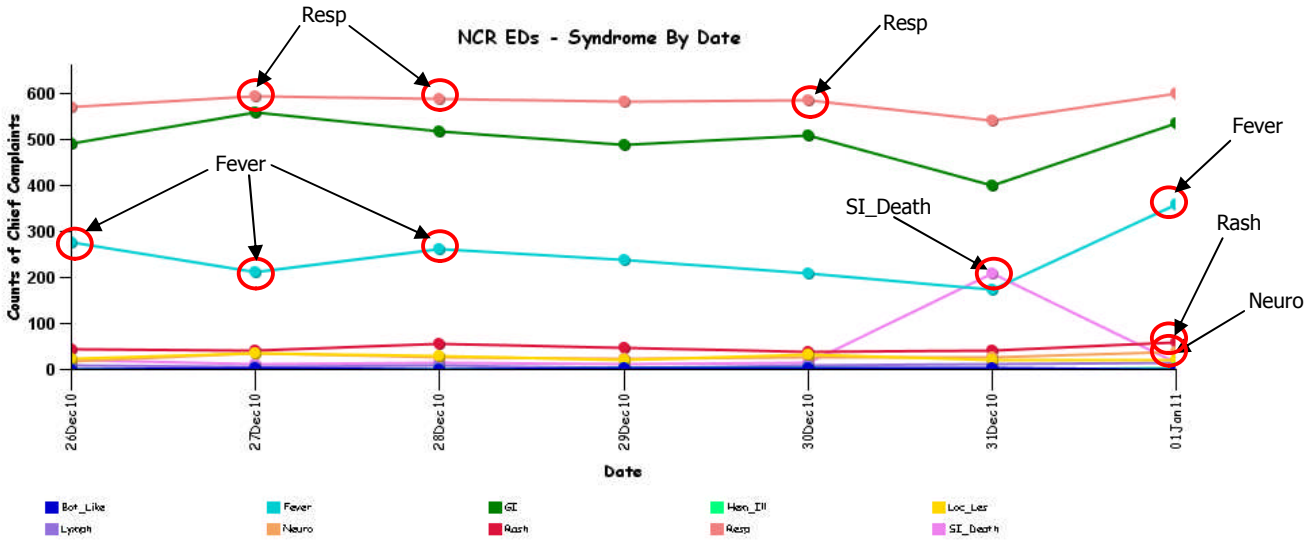
Public Health & Emergency Preparedness Bulletin: # 2010:52
Reporting for the week ending 1/1/11 (MMWR Week #52)

CURRENT HOMELAND SECURITY THREAT LEVELS

National: **Yellow (ELEVATED) *The threat level in the airline sector is Orange (HIGH)**
Maryland: **Yellow (ELEVATED)**

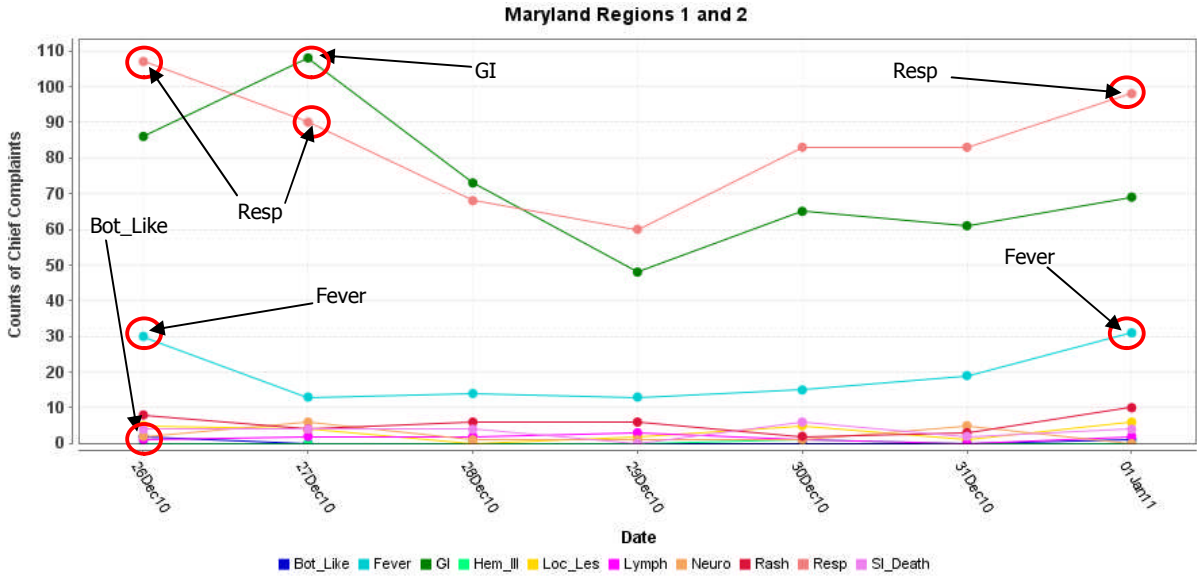
SYNDROMIC SURVEILLANCE REPORTS
ESSENCE (Electronic Surveillance System for the Early Notification of Community-based Epidemics):
Graphical representation is provided for all syndromes, excluding the "Other" category, all age groups, and red alerts are circled. Red alerts are generated when observed count for a syndrome exceeds the 99% confidence interval. Note: ESSENCE – ANCR uses syndrome categories consistent with CDC definitions.

Overall, no suspicious patterns of illness were identified. Track backs to the health care facilities yielded no suspicious patterns of illness.

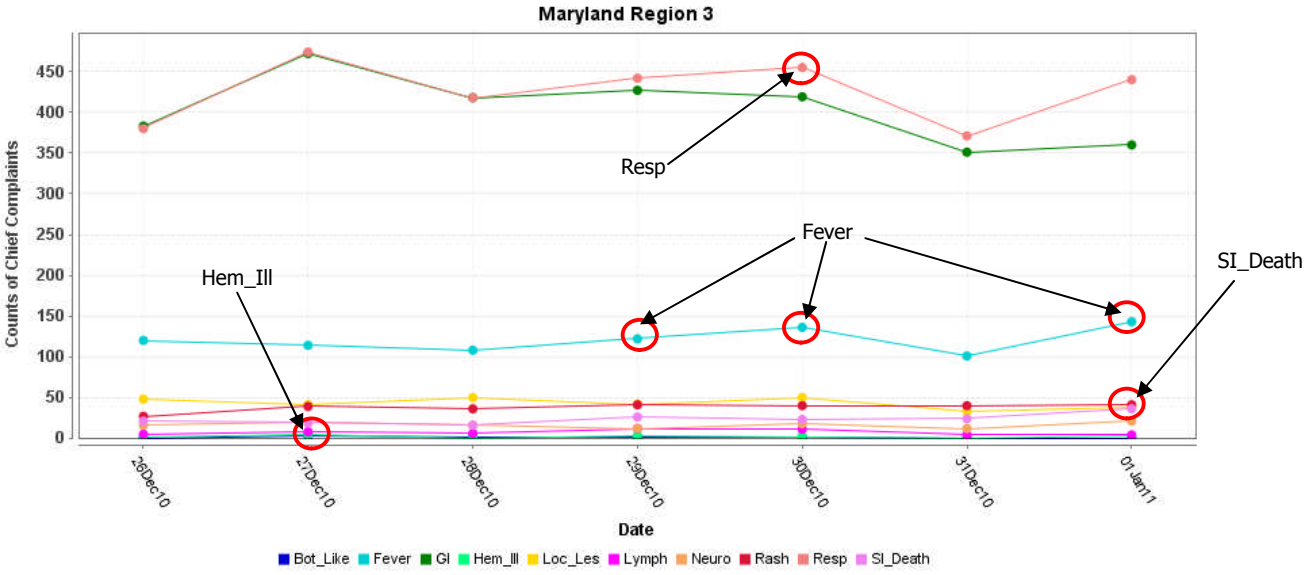


*Includes EDs in all jurisdictions in the NCR (MD, VA, and DC) reporting to ESSENCE

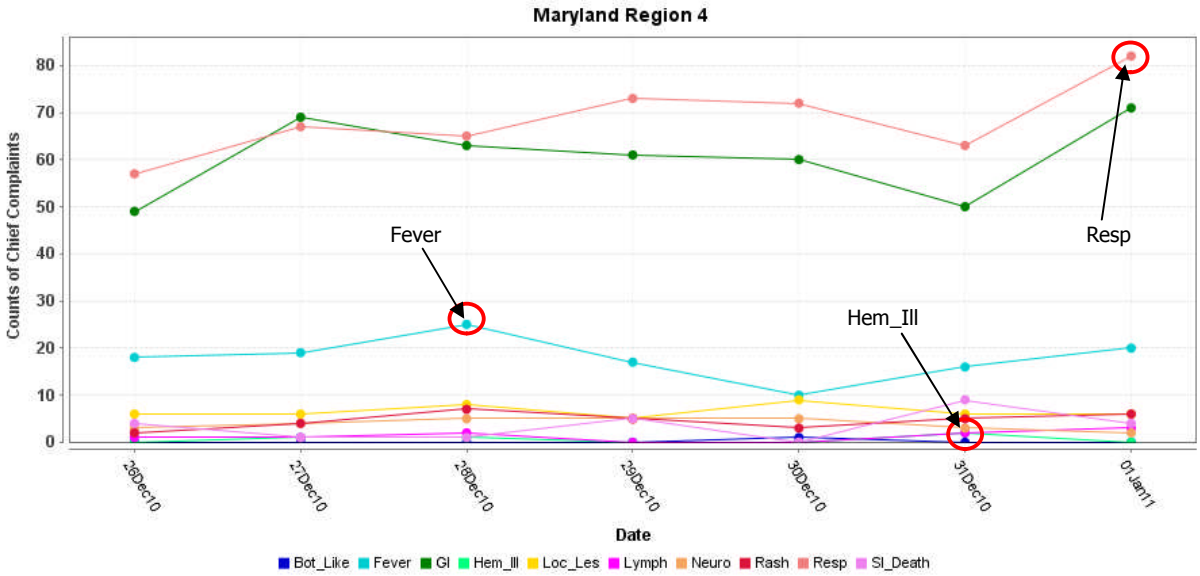
MARYLAND ESSENCE:



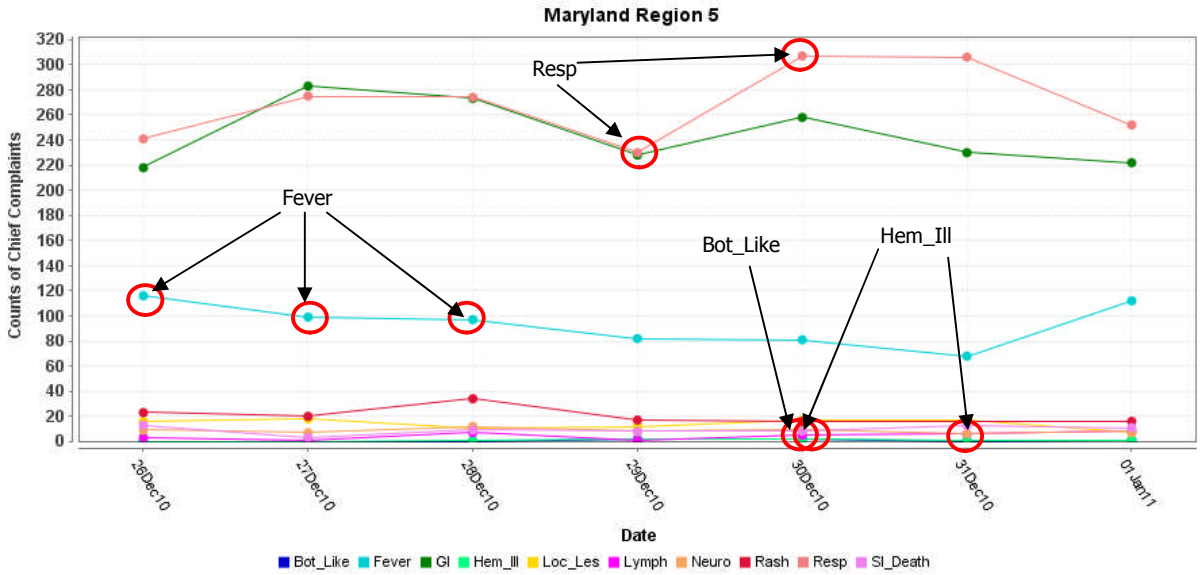
* Region 1 and 2 includes EDs in Allegany, Frederick, Garrett, and Washington counties reporting to ESSENCE



* Region 3 includes EDs in Anne Arundel, Baltimore City, Baltimore, Carroll, Harford, and Howard counties reporting to ESSENCE



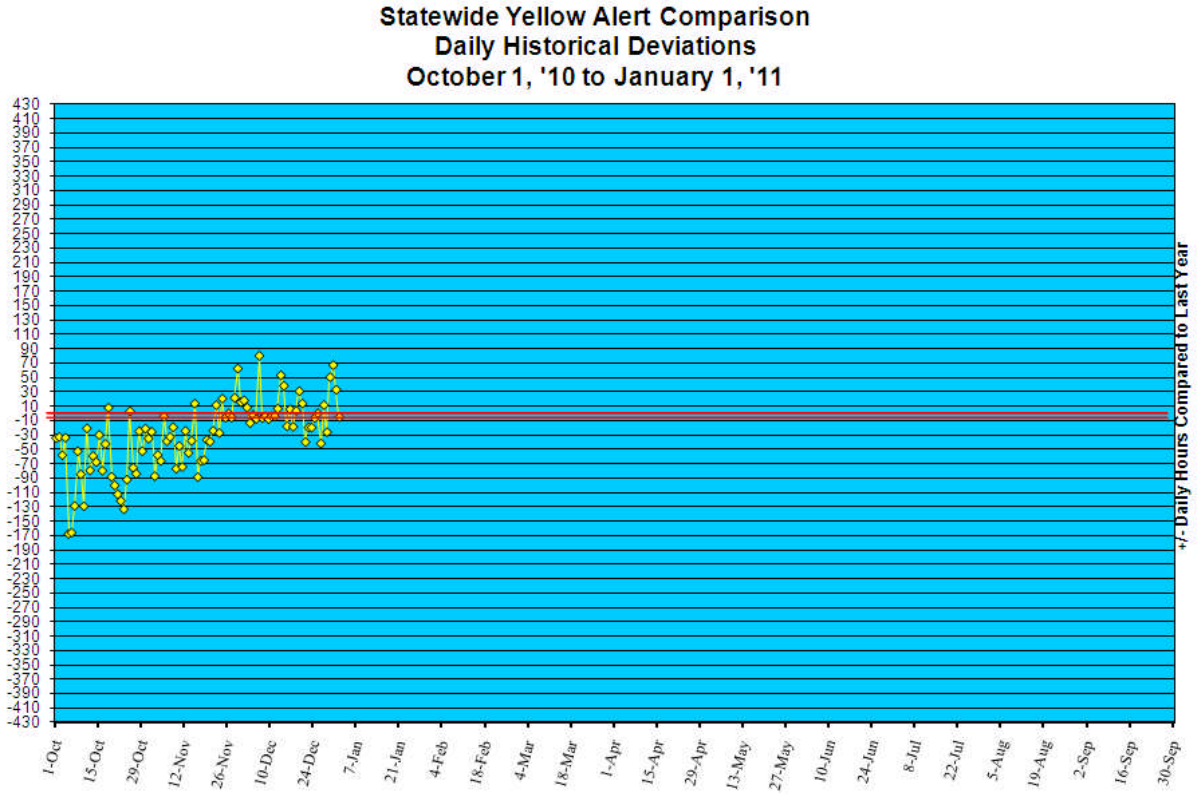
* Region 4 includes EDs in Cecil, Dorchester, Kent, Somerset, Talbot, Wicomico, and Worcester counties reporting to ESSENCE



* Region 5 includes EDs in Calvert, Charles, Montgomery, Prince George's, and St. Mary's counties reporting to ESSENCE

REVIEW OF EMERGENCY DEPARTMENT UTILIZATION

YELLOW ALERT TIMES (ED DIVERSION): The reporting period begins 10/01/10.



REVIEW OF MORTALITY REPORTS

Office of the Chief Medical Examiner: OCME reports no suspicious deaths related to an emerging public health threat for the week.

MARYLAND TOXIDROMIC SURVEILLANCE

Poison Control Surveillance Monthly Update: Investigations of the outliers and alerts observed by the Maryland Poison Center and National Capital Poison Center in November 2010 did not identify any cases of possible public health threats.

REVIEW OF MARYLAND DISEASE SURVEILLANCE FINDINGS

COMMUNICABLE DISEASE SURVEILLANCE CASE REPORTS (confirmed, probable and suspect):

Meningitis:	**Aseptic**	**Meningococcal**
New cases (December 26, 2010 – January 1, 2011):	17	0
Prior week (December 19 – December 25, 2010):	17	0
Week#52, 2009 (December 27, 2009 – January 2, 2010):	6	0

Eight outbreaks were reported to DHMH during MMWR Week 52 (December 26, 2010 – January 1, 2011):

6 Gastroenteritis outbreaks
4 outbreaks of GASTROENTERITIS in Nursing Homes
2 outbreaks of GASTROENTERITIS in Assisted Living Facilities

2 Respiratory illness outbreaks
1 outbreak of INFLUENZA in a Nursing Home
1 outbreak of ILI in a Nursing Home

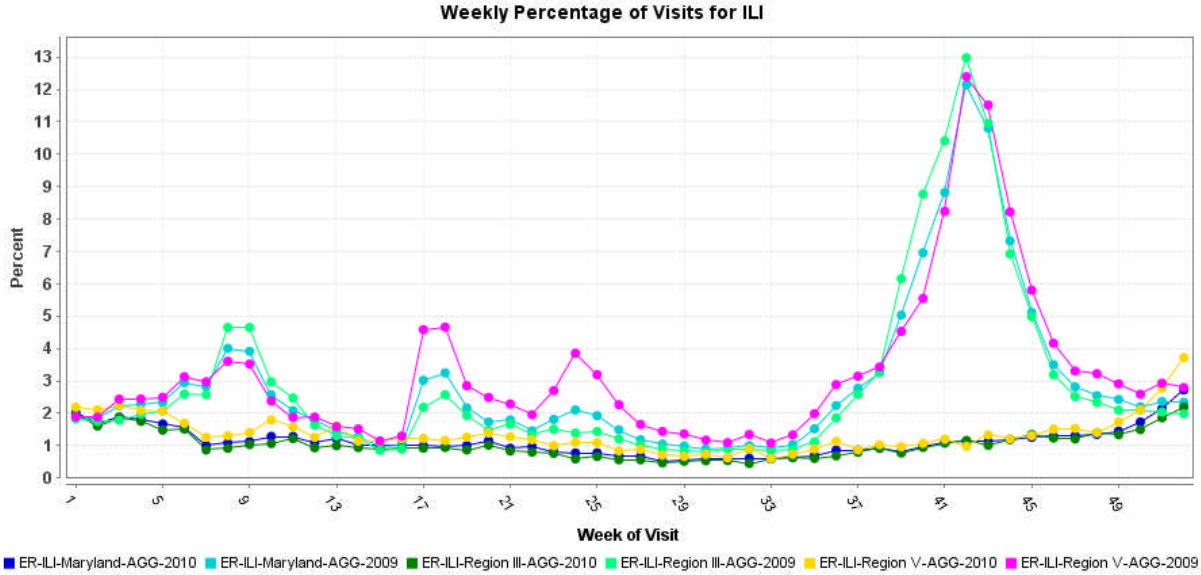
MARYLAND SEASONAL FLU STATUS

Seasonal Influenza reporting occurs October through May. Seasonal influenza activity was LOCAL for Week 52.

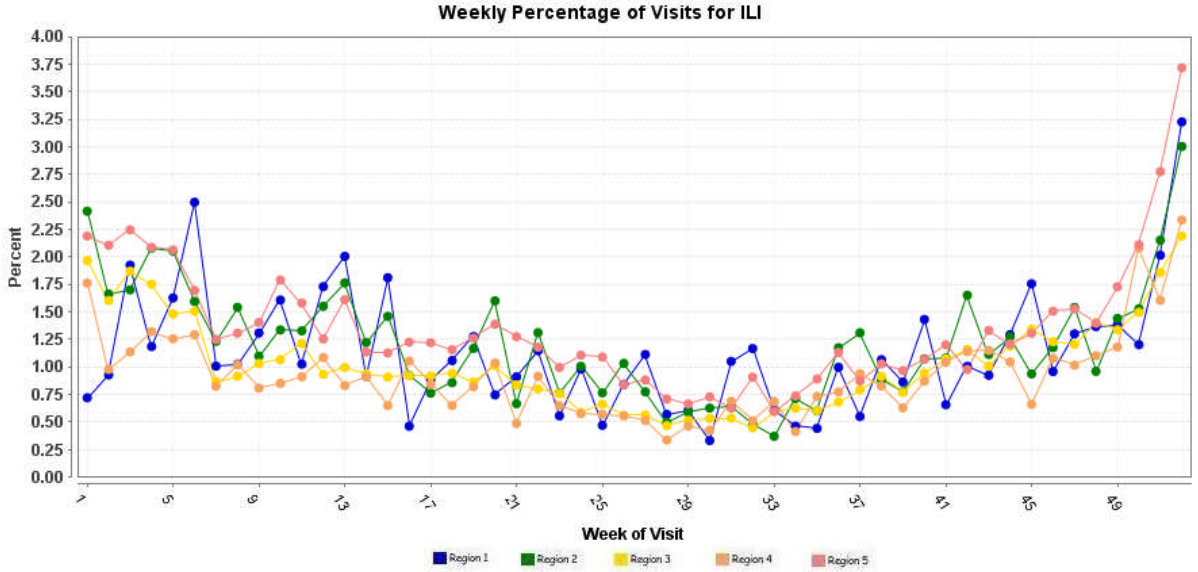
SYNDROMIC SURVEILLANCE FOR INFLUENZA-LIKE ILLNESS

Graphs show the percentage of total weekly Emergency Department patient chief complaints that have one or more ICD9 codes representing provider diagnoses of influenza-like illness. These graphs do not represent confirmed influenza.

Graphs show proportion of total weekly cases seen in a particular syndrome/subsyndrome over the total number of cases seen. Weeks run Sunday through Saturday and the last week shown may be artificially high or low depending on how much data is available for the week.



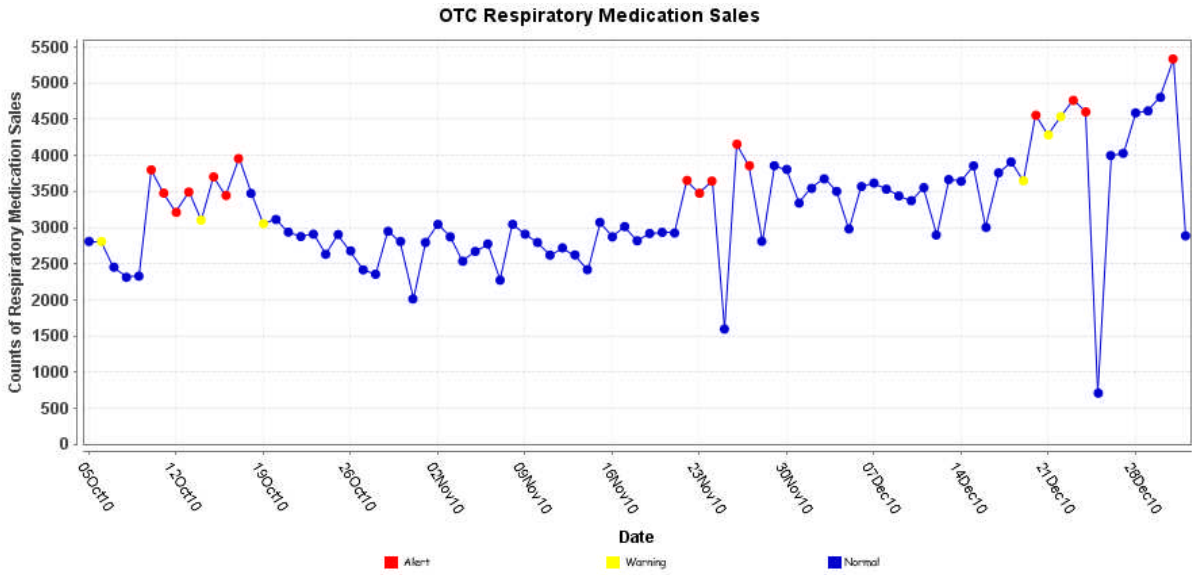
* Includes 2009 and 2010 Maryland ED visits for ILI in Metro Baltimore (Region 3), Maryland NCR (Region 5), and Maryland Total



*Includes 2010 Maryland ED visits for ILI in Region 1, 2, 3, 4, and 5

OVER-THE-COUNTER (OTC) SALES FOR RESPIRATORY MEDICATIONS:

Graph shows the daily number of over-the-counter respiratory medication sales in Maryland at a large pharmacy chain.



PANDEMIC INFLUENZA UPDATE / AVIAN INFLUENZA-RELATED REPORTS

WHO update: The current WHO phase of pandemic alert for avian influenza is 3. Currently, the avian influenza H5N1 virus continues to circulate in poultry in some countries, especially in Asia and northeast Africa. This virus continues to cause sporadic human infections with some instances of limited human-to-human transmission among very close contacts. There has been no sustained human-to-human or community-level transmission identified thus far.

In **Phase 3**, an animal or human-animal influenza reassortant virus has caused sporadic cases or small clusters of disease in people, but has not resulted in human-to-human transmission sufficient to sustain community-level outbreaks. Limited human-to-human transmission may occur under some circumstances, for example, when there is close contact between an infected person and an unprotected caregiver. However, limited transmission under such restricted circumstances does not indicate that the virus has gained the level of transmissibility among humans necessary to cause a pandemic.

As of December 29, 2010, the WHO-confirmed global total of human cases of H5N1 avian influenza virus infection stands at 512, of which 304 have been fatal. Thus, the case fatality rate for human H5N1 is about 59%.

AVIAN INFLUENZA (SOUTH KOREA): 31 December 2010, South Korea Friday [31 Dec 2010] confirmed an outbreak of bird flu [avian A/(H5N1) influenza virus infection] at 2 poultry farms in the central and southwestern parts of the country. Suspected cases reported on 29 Dec 2010 from a duck farm in Cheonan, South Chungcheong province, and a chicken farm in Iksan, North Jeolla province, tested positive for the H5N1 bird flu virus, the Ministry for Food, Agriculture, Forestry and Fisheries said. Both farms have been placed under quarantine with authorities moving to cull and bury their ducks and chickens to prevent the spread of the disease. The ministry has raised the alert level for the disease to "caution." The country confirmed 3 cases of bird flu from migratory birds earlier in the month [December 2010]. In August 2008, South Korea declared itself free of bird flu after the country suffered its worst outbreak of the disease with nearly 8.5 million birds culled.

AVIAN INFLUENZA, HUMAN (EGYPT): 29 December 2010, The Ministry of Health of Egypt has announced 2 new cases of human infection with H5N1 avian influenza. A 28-year-old woman from Manshaet district of Damnhouar governorate developed symptoms on 12 Dec 2010. She was admitted to hospital on 14 Dec 2010 and subsequently was discharged on the 22 Dec 2010 in good and stable condition. She has a history of exposure in a market where live animals are sold. An 11-year-old girl from Esna district of Luxor governorate developed symptoms on 18 Dec 2010 and was admitted to the hospital the following day. She experienced severe respiratory symptoms requiring mechanical ventilation and died on 23 Dec 2010. No information is available regarding poultry exposure. Investigations into the source of infection are underway. Laboratory tests have confirmed H5N1 virus and both patients were treated with antiviral medications. Of the 115 cases confirmed to date in Egypt, 38 have been fatal.

AVIAN INFLUENZA (JAPAN): 27 December 2010, The Environment Ministry said Wednesday [22 Dec 2010] the highly infectious H5N1 strain of avian influenza found in a hooded crane in Izumi plain, Kagoshima Prefecture, was confirmed to be very lethal, a day after the prefectural government detected the flu in the bird's carcass. The DNA structure of the virus was quite similar to the strains found in the droppings of a wild duck in Wakkanai, Hokkaido, in October [2010], and in a weakened young tundra swan

found at a residence in Yonago, Tottori Prefecture, in November [2010], according to the ministry. Earlier Wednesday [22 Dec 2010], experts from the government checked local poultry farms. Of about 160 farms within a 10-km [6 mi] radius of the Izumi plain, which sees the nation's largest winter congregation of cranes, some 50 have already been confirmed free of infection by a team of roughly 40 experts, officials said. Kagoshima was top among the 47 prefectures in the production of broiler chickens in 2009 -- worth about Yen 50.5 billion [approx USD 610 million] -- and 3rd in eggs at Yen 24.6 billion [approx USD 297 million], according to data at the Agriculture, Forestry and Fisheries Ministry. Many of the 28 million chickens being raised in the prefecture are bred in its northwestern region, where the affected plain is located, prompting the prefectural government to take steps to prevent the virus spreading to poultry. "Many migratory birds come to Izumi. . . . As the avian influenza spread, I worried about when it would come to this place," said an area chicken rancher. He said he had been sterilizing his farm as usual since shipping all of his 100 000 chickens last Friday [17 Dec 2010]. Another rancher said she was confident her property was safe thanks to regular sterilizations and fences that were erected to keep out wild birds. But she worried that harmful rumors might.

NATIONAL DISEASE REPORTS

SALMONELLOSIS (USA): 31 December 2010, CDC is collaborating with public health officials in many states and with the FDA to investigate a multistate outbreak of Salmonella [enterica] serotype I 4,[5],12:i:- infections. Investigators are using DNA analysis of Salmonella bacteria obtained through diagnostic testing to identify cases of illness that may be part of this outbreak. From 1 Nov through 27 Dec 2010, 94 individuals infected with the outbreak strain of S. enterica serotype I 4,[5],12:i:-, whose illnesses began since 1 Nov 2010, have been reported from 16 states and the District of Columbia. The number of ill people identified in each state with the outbreak strain is as follows: California (1), Connecticut (1), District of Columbia (1), Georgia (1), Hawaii (1), Iowa (1), Illinois (51), Indiana (9), Massachusetts (1), Missouri (17), New York (1), Pennsylvania (2), South Dakota (1), Tennessee (1), Texas (1), Virginia (1), and Wisconsin (3). Among 91 persons for whom information is available, illness onset dates range from 1 Nov to 14 Dec 2010. Case-patients range in age from 1 to 75 years, with a median age of 28; 61 (67 percent) of patients are female. Among persons with available information, 24 percent reported being hospitalized. No deaths have been reported. Because the pulsed-field gel electrophoresis (PFGE) pattern associated with this particular serotype commonly occurs in the USA, some of the cases identified may not be related to this outbreak. Collaborative investigative efforts of local, state, and federal public health and regulatory agencies have linked this outbreak to consumption of Tiny Greens Organic Farm's Alfalfa Sprouts and Spicy Sprouts. The sprouts were distributed to Illinois, Indiana, Iowa, and Missouri, and may also have been distributed to other Midwestern states. Approximately half of the illnesses occurred in Illinois, where many of the ill individuals ate sandwiches containing sprouts at various Jimmy John's outlets. Jimmy John's restaurants have voluntarily suspended serving sprouts at their Illinois franchise locations. This investigation is ongoing. CDC, FDA, and state and local public health partners are continuing surveillance to identify new cases and trace potentially contaminated products. CDC will continue to update the public on the progress of this investigation as information becomes available. (Food Safety Threats are listed in Category B on the CDC list of Critical Biological Agents) *Non-suspect case

INTERNATIONAL DISEASE REPORTS

CRIMEAN CONGO HEMORRGHAGIC FEVER (SOUTH AFRICA): 1 January 2011, A 64-year-old from Petrusburg in the Northern Cape who fell ill after being bitten by a tick has been diagnosed as having the deadly Congo fever. Medically known as Crimean-Congo haemorrhagic fever [CCHF], the disease has no cure and can kill sufferers within days. Symptoms may include bleeding from all orifices of the body. The farmer became the 5th person to have contracted the disease in South Africa this year [2010]. All the cases were confirmed by a state laboratory. The farmer was bitten by a Hyalomma tick last Thursday [30 Dec 2010] and 2 days later he developed flu-like symptoms including fever, headaches and body pains. The farmer was then taken to Kimberley Hospital Complex, where he is being treated for CCHF. Professor Lucille Blumberg of the National Institute of Communicable Diseases yesterday confirmed that the Petrusburg farmer was suffering from the dreaded CCHF after being bitten by a tick. She said that this was the 3rd case of the disease reported in Northern Cape this year [2010]. Blumberg revealed that another 67-year-old sheep farmer from Rouxville in the Free State, who also has CCHF, was responding well to treatment, and no secondary cases have been reported. "Congo fever is not a common disease in Northern Cape, but it is not surprising when a case is reported. Most of them occur in summer months," said Blumberg. "Fortunately the doctors in the region are familiar with the disease and its symptoms and always take safety precautions when a patient shows symptoms of the disease at the hospital." CCHF is caused by infection with a tick-borne virus (Nairovirus) [in the family Bunyaviridae] which is acquired when a person is bitten by a Hyalomma tick. Symptoms include headache, high fever, back pain, joint pain, stomach pain and vomiting. Those at risk of contracting it are animal herders, livestock workers and workers at animal slaughter houses. People who come into direct contact with Congo fever sufferers are also at risk which is why patients suspected or confirmed are kept in isolation. Spokesperson for the provincial department of health Lulu Mxekezo said the 64-year-old farmer was still in isolation at the Kimberly Hospital. "Congo fever is highly infectious. People who came into direct contact with the farmer are being closely monitored to see if they present symptoms of the disease." The disease is endemic in many countries in Africa, Europe and Asia, and during 2001 cases or outbreaks were recorded in Kosovo, Albania, Iran, Pakistan and South Africa. The disease was 1st described in the Crimean Peninsula in 1944 and given the name Crimean hemorrhagic fever. In 1969 it was recognized that the pathogen causing Crimean hemorrhagic fever was the same as that responsible for an illness identified in 1956 in the Congo. The linkage of the 2 place names resulted in the name for the disease and the virus. CCHF is a severe disease in humans, with a high mortality rate. (Viral Hemorrhagic Fever is listed in Category A on the CDC List of Critical Biological Agents) *Non-suspect case

CHOLERA (HAITI): 31 December 2010, Haiti's cholera death toll has soared in recent days with 3,333 people dead, official figures show. The figures, released yesterday, 30 Dec 2010, included a 1-day record high for the daily number of fatalities since the outbreak erupted in mid-October 2010. The new data up to 26 Dec 2010 of 432 more recorded deaths compared with previous Haitian health ministry data marked a major jump in fatalities, although it was unclear exactly when they occurred. The number of confirmed cholera deaths on 19 Dec 2010 alone was just over 100, the new data showed, far higher than previous peaks around 80

in mid-November 2010. More recently, the death tolls have returned to previous averages of around 50 new reported deaths each day. The total number of infections soared toward 150,000 in Haiti. The Pan-American Health Organization in early December 2010 estimated Haiti could see up to 400,000 cholera cases over the next 12 months, half of them within 3 months alone. (Water Safety Threats are listed in Category B on the CDC list of Critical Biological Agents) *Non-suspect case

CHOLERA (DOMINICAN REPUBLIC): 31 December 2010, Authorities in the Dominican Republic have shut off water supplies in a western region after lab tests revealed they were contaminated with cholera, officials said Thu 30 Dec 2010. The affected communities are located near Banica, a town along the border that the Dominican Republic shares with Haiti, where more than 2400 [3000 -- see report above] people have died as a result of a cholera epidemic. Water trucks are temporarily serving dozens of residents in the area, Health Minister Bautista Rojas said. Soldiers also are patrolling several rivers where fishing, water consumption and other activities have been banned, including the South Yaque, one of the country's largest and most important rivers. The government drained an irrigation canal in the border province of San Juan de la Maguana on Mon 27 Dec 2010 because officials said it was contaminated. The canal provides water to dozens of families and is used to irrigate 273 hectares (675 acres) of crops. Rojas expected to reopen the canal by the end of the week. At least 139 cholera cases have been reported in the Dominican Republic, most of them along border towns. (Water Safety Threats are listed in Category B on the CDC list of Critical Biological Agents) *Non-suspect case

JAPANESE ENCEPHALITIS AND OTHER (INDIA): 28 December 2010, In Gorakhpur 2 people succumbed to encephalitis at a hospital, taking the toll due to the deadly brain fever in eastern Uttar Pradesh to 541 this year [2010]. Health officials said today [28 Dec 2010] that as many as 6 fresh cases of acute encephalitis syndrome (AES) have been reported at the Baba Raghav Das Medical College Hospital in the last 2 days. Additional director (Health) UK Srivastava said the dead belonged to Kushinagar and Gorakhpur districts. As many as 67 patients are presently undergoing treatment at various government hospitals of Gorakhpur, Mahrajganj, Deoria, Kushinagar, Basti, Sant Kabir Nagar, and Siddharthanagar, he said. This year [2010], a total of 3754 people suffering from encephalitis have been admitted to various government hospitals, of whom 541 died. Meanwhile, the Japanese encephalitis vaccination drive has been successfully completed in 7 districts of eastern Uttar Pradesh. (Viral Encephalitis is listed in Category B on the CDC list of Critical Biological Agents) *Non-suspect case

OTHER RESOURCES AND ARTICLES OF INTEREST

More information concerning Public Health and Emergency Preparedness can be found at the Office of Preparedness and Response website: http://preparedness.dhmh.maryland.gov/

Maryland's Resident Influenza Tracking System: http://dhmh.maryland.gov/flusurvey

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NOTE: This weekly review is a compilation of data from various surveillance systems, interpreted with a focus on a potential BT event. It is not meant to be inclusive of all epidemiology data available, nor is it meant to imply that every activity reported is a definitive BT event. International reports of outbreaks due to organisms on the CDC Critical Biological Agent list will also be reported. While not "secure", please handle this information in a professional manner. Please feel free to distribute within your organization, as you feel appropriate, to other professional staff involved in emergency preparedness and infection control.

For questions about the content of this review or if you have received this and do not wish to receive these weekly notices, please e-mail me. If you have information that is pertinent to this notification process, please send it to me to be included in the routine report.

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